

ARRANGEMENT
between the
UNITED STATES DEPARTMENT OF ENERGY
and the
ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT
NUCLEAR ENERGY AGENCY
FOR COOPERATION IN THE FIELD OF
NUCLEAR DATA AND COMPUTER PROGRAMS

WHEREAS:

The United States Department of Energy (DOE) and the Nuclear Energy Agency (NEA) of the Organization for Economic Cooperation and Development, hereinafter called "the Parties", have participated in exchanges of nuclear data and computer programs since May 23, 1980; and

The Parties desire to continue the exchange of nuclear data and computer program activities initiated under the Cooperative Arrangement in the Field of Nuclear Data and Computer Programs of December 16, 1985, as extended;

THE PARTIES HAVE AGREED AS FOLLOWS:

ARTICLE I - OBJECTIVE

The aim of cooperation under this Arrangement is to exchange nuclear data and related information and computer program packages pertinent to civilian nuclear science and technology collected by the following organizations (hereinafter referred to as "the Centers") operated by the Parties: the NEA Data Bank (NEA-DB) at Issy-les-Moulineaux, France, a data bank whose functions include the classification, computer storage, and distribution to customer organizations of large quantities of information in the form of basic numerical and bibliographical nuclear physics data and of large computer programs for a wide range of applications in nuclear power reactor technology; the U.S. National Nuclear Data Center (NNDC) at Brookhaven National Laboratory (BNL); the U.S. Energy Science and Technology Software Center (ESTSC).

at Oak Ridge, Tennessee, a software collection and dissemination activity; and the U.S. Radiation Safety Information Computational Center (RSICC), an information analysis center, at Oak Ridge National Laboratory (ORNL). The collective functions of the U.S. Centers and the function of the NEA-DB are essentially similar.

ARTICLE 2 - NUCLEAR CROSS SECTION REFERENCES

- 2.1 NNDC and NEA-DB shall exchange, at agreed intervals and at least semi-annually, new entries to the index of nuclear cross section references (hereinafter referred to as the CINDA reference base) such that both NNDC and NEA-DB may maintain an index of the CINDA entries compiled.
- 2.2 To facilitate such exchanges, copies of information databases shall be available at the NNDC and NEA-DB Centers. Both NNDC and NEA-DB shall use compatible systems for obtaining, storing, and disseminating bibliographic indexing information and shall transmit at agreed intervals all available data placed on appropriate memory devices for which they shall use the same format.
- 2.3 NNDC and NEA-DB shall attempt to correlate the above CINDA reference base with the microscopic nuclear cross section database and the database of evaluated nuclear data.

ARTICLE 3 - MICROSCOPIC NUCLEAR CROSS SECTION DATA AND CONNECTED INFORMATION

- 3.1 NNDC and NEA-DB shall exchange, in their capacities as points of contact, information on measured microscopic nuclear cross section data, together with direct connected documentation describing measurement techniques, procedures, facilities, data reduction, corrections, error assessment, standards, and other relevant matters.
- 3.2 To this end, both NNDC and NEA-DB shall use the same exchange format and shall transmit to each other all data compiled, at least semi-annually, after it is made available to them.

ARTICLE 4 -EVALUATED SETS OF NUCLEAR CROSS SECTION DATA

- 4.1 As points of contact within their respective service areas as defined in Article 7, NNDC and NEA-DB shall each distribute to customers evaluated sets of nuclear cross section data that have been provided to them by the other Center.
- 4.2 NNDC and NEA-DB shall transmit to each other evaluated data on appropriate media as soon as possible after such data are made available to them.
- 4.3 NNDC and NEA-DB shall collect, to the extent possible, appropriate supporting documentation for the evaluations on which libraries of evaluated data are based and shall provide such documentation to each other on a continuing basis.
- 4.4 All information on evaluated sets of nuclear cross section data exchanged under the terms of this Article, when disseminated by the recipient Center to the countries within its service area defined in Article 7, shall bear a suitable legend agreed to by the sending Center and the appropriate authorities, specifying that the data have been obtained under the terms of this Arrangement.

ARTICLE 5 - COMPUTER PROGRAM PACKAGES PERTINENT TO NUCLEAR SCIENCE AND TECHNOLOGY

- 5.1 As points of contact within their respective service areas as defined in Article 7, each Center shall each distribute computer program packages pertinent to nuclear science and technology that are provided to it by the other Centers. The exchange shall include a complete citation and an abstract of each computer program available for distribution.
- 5.2 Computer program documentation shall be transmitted in the original languages, together with any available translation. Computer program abstracts shall be in English.
- 5.3 Each Center shall undertake to assure that the computer program packages to be exchanged are written in accordance with the rules of good programming practices and that these computer program packages, to the extent possible, are complete and properly documented.
- 5.4 RSICC and NNDC shall serve as supplemental DOE points of contact, subject to the provisions of Article 4 and of this Article 5, for the following information:

- a. RSICC for the exchange of computer programs and data sets pertinent to radiation transport and safety; and
 - b. NNDC for evaluated nuclear data and processing codes.
- 5.5 The Centers shall annually exchange statistics on the utilization of the other Center's computer program packages.

ARTICLE 6 - COMMUNICATION

In order to ensure the fullest possible exchange of information, each of the Centers referred to in this Arrangement shall endeavor to keep close contact with its respective users and producers.

ARTICLE 7 - SERVICE AREAS AND THIRD PARTIES

- 7.1 For the purpose of this Arrangement, the service area of NEA-DB shall be comprised of all current member countries of the NEA-DB. The NEA-DB must notify DOE in writing when new countries plan to join. Inclusion of a new country in the NEA-DB service area will require written approval by both Parties. International organizations shall not be included in the NEA-DB service area.
- 7.2 The primary service areas of NNDC, ESTSC, and RSICC shall be comprised of the U.S. and Canada.
- 7.3 Requests from countries outside the service areas described above (including member countries of the Organization for Economic Cooperation and Development who are not members of the NEA-DB) for NEA-DB computer programs (except those of U.S. origin) will be addressed by NEA, and requests from such countries for U.S. computer programs will be addressed by the appropriate U.S. Center. Information received by one of the Centers shall not, except as may be required by applicable laws, be transmitted by that Center to countries outside its own service area without the prior written consent of the transmitting Center. Electronic mail is acceptable as written consent. However, this restriction does not apply to nuclear cross section references (CINDA references) and microscopic nuclear cross section data (measured values). In addition, U.S. Centers may transmit U.S. computer programs to countries in the NEA-DB service area if an NEA-DB member country so requests.

- 7.4 Requests from any country, including those in the NEA-DB service area, to the NEA-DB for U.S. codes designated as dual-use (for both civil and non-civil applications) must be individually approved by DOE on a case-by-case basis.

ARTICLE 8 - LEGISLATIVE PROVISIONS

Each Party, and its respective Centers, shall conduct the activities provided for in this Arrangement subject to the constitution, laws, regulations, and licensing requirements applicable to each Party and to each Center. Each Party shall bear the costs of its participation in the activities under this Arrangement. The obligations of the Parties under this Arrangement are subject to the availability of appropriated funds.

ARTICLE 9 - PUBLICATIONS

- 9.1 Publications resulting from this Arrangement that are issued by any Center shall be transmitted to the other Centers, in quantities to be agreed upon, for distribution without charge.
- 9.2 All information, data, and computer programs subject to this Arrangement shall be in the public domain. No proprietary, sensitive, or classified information or information subject to copyright shall be exchanged under this Arrangement. No U.S.-origin nuclear computer program funded by DOE shall be transferred under this Arrangement without the prior written consent of the appropriate U.S. Center.

ARTICLE 10 - VISITS AND EXCHANGES OF PERSONNEL

In order to facilitate the implementation of this Arrangement, visits and exchanges of personnel between the Centers may be arranged. Periodic meetings of the heads of the Centers are encouraged. Such visits and personnel exchanges shall be subject to the prior approval of the Parties.

ARTICLE 11 – SEMINARS

Seminars to facilitate the use or exchange of information may be organized jointly by the Centers within the scope of this Arrangement and shall be subject to the prior approval of the participating Centers.

ARTICLE 12 - COORDINATION

- 12.1 To supervise the execution of the obligations of the Centers under this Arrangement, each Center shall designate coordinators through an exchange of correspondence. At the conclusion of the first year of this Arrangement, and periodically thereafter, the coordinators shall review the program and consider any necessary adjustments.
- 12.2 The DOE shall designate a representative to attend NEA-DB Executive Committee meetings.

ARTICLE 13 - AMENDMENTS

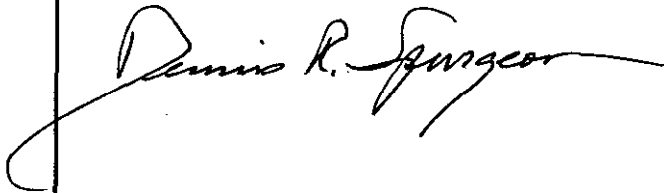
This Arrangement may be amended by written agreement of the Parties. Any amendment shall enter into force upon the date stipulated therein.

ARTICLE 14 - DURATION AND TERMINATION

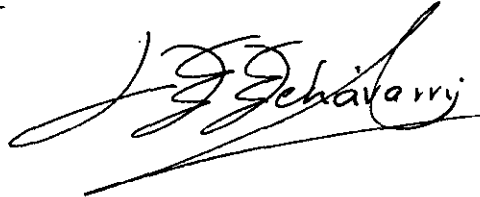
- 14.1 This Arrangement shall enter into force upon signature, and (subject to Article 14.2) shall remain in force for 5 years, and shall be automatically extended for additional 5-year periods.
- 14.2 This Arrangement may be terminated at any time by either Party, upon three months advance notification in writing by the Party seeking to terminate the Arrangement. Such termination shall be without prejudice to the rights which may have accrued under this Arrangement to either Party up to the date of such termination. Notwithstanding the termination of this Arrangement, the protections afforded in Article 7 shall continue to apply.

DONE at Washington the tenth day of April 2006, in duplicate.

FOR THE UNITED STATES
DEPARTMENT OF ENERGY:

A handwritten signature in cursive script, reading "Dennis R. Spurgeon". The signature is written in black ink and is positioned below the text "FOR THE UNITED STATES DEPARTMENT OF ENERGY:". The signature is fluid and extends to the left.

FOR THE ORGANIZATION FOR
ECONOMIC COOPERATION AND
DEVELOPMENT/NUCLEAR ENERGY
AGENCY:

A handwritten signature in cursive script, reading "J. J. Schaverry". The signature is written in black ink and is positioned below the text "FOR THE ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT/NUCLEAR ENERGY AGENCY:". The signature is fluid and extends to the right.